

Contact: BJ Tomlinson
Renewable Energy & Sustainability
Program Manager
Fort Bliss Garrison
Directorate of Public Works

BLDG 777
1733 Pleasonton
Fort Bliss, TX 79916
Phone 915-241-6906



Press Release

Fort Bliss Seeks Information on Renewable Energy and Net Zero Technologies

*By BJ Tomlinson,
Renewable Energy & Sustainability Program Manager*

FORT BLISS, Texas (8 Aug. 2011) – With \$1.5 billion in investment potential, Fort Bliss is now looking to industry to obtain their knowledge of technologies and processes for sustainable and renewable alternatives for energy, water and waste reduction.

The request for information is designed to assist Fort Bliss in becoming the first large scale Net Zero military installation.

These projects could lead to the production of over 140 Mega Watts of renewable energy, reclamation of over 500 million gallons of water per year, elimination of a million tons per year of landfill deposition of solid waste, and creation of nested micro-grids to enhance energy security on the installation.

This effort represents a major step forward by Fort Bliss in the Army's efforts to achieve a Net Zero installation.

Fort Bliss has been designated by the Army as a Pilot Integrated Net Zero Installation to achieve net zero status in Energy, Water, and Waste by 2020. Fort Bliss aims to achieve Net Zero Energy by 2015 to be followed by Net Zero Water and Waste by 2018. This program is the tip of the spear for the Army push to become energy, water, and waste efficient and secure across its infrastructure.

According to COL Joseph A. Simonelli, Jr., Fort Bliss Garrison Commander, "Fort Bliss is seeking information on a variety of technologies and approaches in a number of areas that can be economically and feasibly implemented through either a combination of public and private investment or through public private partnerships on Army land with long term pay back through savings or commodity purchases."

COL Simonelli added, such investments can be made utilizing instruments such as Extended Use Leases, Power Purchase Agreements, Energy Savings Performance Contracts, Utility Energy Savings Contracts, among others that are available to Army contracting.

This round of information gathering includes nine separate Requests for Information including Waste-to-Energy, Wastewater, Large Scale Energy Storage, Large and Small Scale Wind, Geothermal Energy, Microgrids, Solar, and Net Zero Homes.

The information gathered in this Request for Information will be utilized to help the Army understand the state of the art of technologies and processes, in addition to the associated costs, to achieve Net Zero. Review of the Requests for Information will be conducted by Army Energy Managers, Contracting, Legal, and subject matter expertise from the National Renewable Energy Laboratory.

The Army will take the information and build the acquisition and implementation strategy for Fort Bliss to achieve the Army's Net Zero goals. It is anticipated that in the near term through this planning phase, the Army will develop and conduct an "Industry Day" to bring the technology developers together to discuss implementation of Net Zero initiatives at Fort Bliss and other Army installations.

The Department of the Army has increasingly recognized that energy and water use and waste management across the footprint of Army installations and operations is occurring at levels which must be comprehensively reduced and must be augmented with sustainable strategies, such as implementing a greater percentage of energy from renewable energy sources. Fort Bliss must strive to meet the requirements of Congressional legislation and Executive Orders, which mandate change in our nation's energy consumption and production as well as water and waste management, as well as Fort Bliss' own goals for 2015 and 2018.

For energy, the legislated, Executive Order, and Army energy mandates and cultural initiatives support Army-wide goals of improving its resiliency and endurance as a military force. These include:

- 1) *Surety*: Preventing loss of access to power and fuel sources.
- 2) *Supply*: Accessing alternative and renewable energy sources available to the installation.
- 3) *Sustainability*: Promoting support for the Army's mission, its community, and the environment.
- 4) *Sufficiency*: Providing adequate power for critical missions.
- 5) *Survivability*: Ensuring resilience in energy systems.

Ms Katherine Hammack, the Assistant Secretary of the Army for Installations, Energy, and the Environment (ASA IE&E), views Net Zero Energy as an installation that produces as much renewable energy on site as it consumes, over the course of a year. For Net Zero Water, the installation limits use of potable fresh water then captures, repurposes or recharges an amount of water equal to or greater than the amount of water it consumes. The net zero water strategy is of increasing importance since scarcity of clean potable water is quickly becoming a serious issue in many countries around the world. The continued draw-down of major aquifers results in significant problems for our future.

Ms Hammack goes on to describe the approach to creating a net zero waste installation is similar to creating a net zero energy installation. The components of net zero solid waste start with reducing the amount of waste generated, re-purposing waste, maximizing recycling of waste stream to reclaim recyclable and compostable materials, recovery to generate energy as a by-product of waste reduction, with disposal being non-existent. Many strategies exist to achieve these aims for waste, including diverting waste to a waste-to-energy process that will produce near base load energy for the Army.

Fort Bliss is planning on expanding soldier and family housing with an eye to maximize home design and operation efficiency to achieve a "Net Zero Home" and "Net Zero Neighborhoods" for energy, water, and waste. These homes need to break the barrier between traditional housing and sustainable homes and communities that are energy, water, and waste efficient and meet the Army's net zero definition. The information that the Army is seeking is to define the state of the art in technology and processes that contribute to a Net Zero home. The information will enable Army Energy Managers, Contracting, and Leadership to better understand what is possible and what the associated costs are to be able to achieve Net Zero status. The Army will utilize the knowledge to improve planning and programming for further housing developments to support soldiers and families.

More information on the Army's Net Zero Pilot program is available online at <http://army-energy.hqda.pentagon.mil/netzero/default.asp>.